GAO

Report to the Commander in Chief, U.S. Transportation Command

September 1988

ADP PLANNING

Challenges at the U.S. Transportation Command



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General Duane H. Cassidy Commander in Chief U.S. Transportation Command Scott Air Force Base, Illinois 62225-7001

Dear General Cassidy:

We have recently completed a review of the actions taken by the U.S. Transportation Command to develop an automated data processing (ADP) plan to carry out its mission. This ADP planning effort is part of the Command, Control, Communications, and Computer Systems (C4S) planning you identified as one of the most significant and complex tasks confronting your Command. The purpose of this report is to highlight several issues that will need management attention in implementing the ADP component of your C4S plan.

On October 1, 1987, the Department of Defense activated the U.S. Transportation Command as a unified command to replace the Joint Deployment Agency. Its mission is to provide transportation services to mobilize, deploy, employ, and sustain U.S. forces on a global basis during war or other national emergency.2 These transportation services include military airlift, sealift, and terminal services; and continental U.S. commercial air and land transportation. In this report we refer to all the providers of these services as the transportation community. The military services are provided through the Military Airlift Command (MAC), Military Sealift Command (MSC), and the Military Traffic Management Command (MTMC). During peacetime, MAC, MSC, and MTMC conduct the transportation activities of their respective commands. When operating under the U.S. Transportation Command, these components retain service-unique missions not subject to the Transportation Command's direction, such as providing weather services and laying ocean communications cables.

The Transportation Command's mission is broader than that of the predecessor Joint Deployment Agency in that mobilization, employment,

¹The Joint Deployment Agency was the predecessor activity to the U.S. Transportation Command and was active from 1979 to 1987. With the establishment of the Command, the Agency was deactivated and became a directorate of the new Command.

²Employ is to move forces into or within a combat or objective area; sustain is to logistically resupply forces.

and sustainment have been added to the original mission of deployment. In this connection, the Command intends to develop a draft transportation-oriented C4s plan by October 1988—and a final plan in 1989—for a system that will support the execution of its worldwide transportation mission.

The U.S. Transportation Command has already taken several steps to develop the ADP portion of its C4S plan. The draft plan is not yet complete. However, management attention in these early stages of planning would help in successfully developing and implementing the ADP plan. Several issues arise from the Command's organizational relationship with other members of the military transportation community which, during peacetime, conduct the transportation activities of their respective commands and, during war or other national emergency, retain service-unique missions. These issues are:

- ensuring the participation of the transportation community when determining changes to be made to operational systems to meet the Command's data requirements,
- working with the transportation community in developing and defending priorities for resources to fulfill the Command's information requirements,
- working with the transportation community to plan for the most effective and efficient means to implement systems to fulfill the Command's mission needs, and
- resolving the developmental problems of the ADP system to be used by the Command in the mid-1990s—the Joint Operation Planning and Execution System (JOPES).

The Chief of Staff and other U.S. Transportation Command officials with whom we discussed our concerns agreed that these matters require early attention by the Command in order to avoid implementation problems with the C4S plan.

In carrying out our work, we interviewed officials at the U.S. Transportation Command and its component commands. We also reviewed pertinent documents relating to the Command's implementation plans and C4s planning activities. The appendix to this report provides a more detailed description of our objectives, scope, and methodology.

Actions Taken or Planned to Develop C4S Plan

The U.S. Transportation Command has had less than 1 year to establish itself as a functioning unit. The Command has a number of major tasks to accomplish prior to becoming fully operational, including developing the ADP portion of the C4S plan.

The Director; Deputy Director; and Chief, Program Management Branch, of the C4S directorate—which is responsible for the C4S plan—all stated that the plan will be formulated on the basis of four specific efforts. The Command

- arranged with the National Aeronautics and Space Administration's Jet Propulsion Laboratory, Pasadena, California, and the Department of Transportation, Washington, D.C., to identify all transportation data bases within both the government and private-sector transportation communities. The results of these studies were due to the Command in the summer of 1988.
- established a requirements task force in May 1988 to identify the information and data elements necessary to meet the mission of mobilization, deployment, employment, and sustainment of U.S. forces. The task force was expected to complete its work in September 1988.
- plans to use the results of the above actions to select existing transportation data bases considered essential to completing its mission, and to identify other essential information not available in current or planned transportation data bases.
- plans to identify ways to accumulate required data from the existing data bases and develop proposals to accumulate data not currently or readily available. These concepts are to be included in the C4S plan.

The first two of these efforts are in process; the results obtained will influence the remaining actions. The Command plans to have the complete C4S plan available in October 1988.

While developing the plan, C4S directorate officials have emphasized that their intent is not to try to merge the transportation community data bases into a single system. Rather, they intend to make a concerted effort to identify the Command's data requirements and formulate a plan to obtain the necessary data from the transportation communities' data bases in the most efficient and practical manner possible. Because the C4S plan is still being developed, options for acquiring the data have not been identified; accordingly, specific techniques for obtaining the data have not been selected. While the draft plan has not been completed and many essential elements are still being defined, we note that the Command faces issues similar to those encountered by the Joint

Deployment Agency in the development and implementation of the deployment system now in use by the Department of Defense, the Joint Deployment System (JDS).

Issues in Implementing the C4S Plan

The Joint Deployment Agency experienced significant and continuing problems while developing the JDS. In 1986 we reported that these problems included a lack of agreement between the Agency and the military departments on the Agency's information needs, delays in developing transportation information systems by other military commands, and the lack of authority by the Agency to direct transportation activities to take action to support these systems.³

The U.S. Transportation Command is confronted with problems similar to those experienced by the Joint Deployment Agency in developing and implementing the JDS. However, the command may also experience new challenges in implementing its C4S plan because the Command's mission incorporates new roles in mobilization, employment, and sustainment.

The Command is faced with the same issue of ensuring the participation of the transportation community when determining changes to be made to the operational systems to meet the Command's data requirements as was its predecessor. For example, the Military Sealift Command and the Military Traffic Management Command expressed reluctance to make changes in operational systems to accommodate the Command's data requirements. Component managers are uncertain as to the demands that the Transportation Command may place on them, and are concerned that such changes, if required, may entail significant changes to their current methods of operation, data needed to meet their departmental reporting requirements, or standard operating procedures now in use. As the components will report and respond to their departments in peacetime and to the Command in war or other national emergency, conflicts may arise in data collection and reporting requirements resulting in the Transportation Command's not having information necessary to fulfill its mission. Without a mechanism to resolve such potential conflicts and establish working solutions, the Command may be unable to satisfy essential information requirements.

Another issue facing the Command is working with the transportation community in developing and defending priorities for resources to fulfill

³Deployment: Authority Issues Affect Joint System Development (GAO/NSIAD-86-155, July 23, 1986)

the Command's information requirements. For example, one Navy system, the Crisis Management Support Subsystem, requested by the Joint Deployment Agency but for which the Agency had no budgetary responsibility, received no funding from the Navy for the past 3 years. While this system may not be needed by the Transportation Command, this problem illustrates the need for a mechanism to coordinate the identification and use of resources by the transportation community in support of the U.S. Transportation Command mission.

A third issue concerns the long-term nature of the development by the transportation community of systems to provide information identified by the Command as essential to its mission. For example, the Joint Deployment Agency, which existed for 9 years, started design and development on the Joint Deployment System in the late 1970s. Identification of desired systems for integration into the system began in the early 1980s, yet in 1987 the Joint Deployment Agency still did not have the information it wanted to carry out its mission. Six of the 14 systems the Agency identified as providing information for inclusion in its system were still under development by other commands at the time the Agency was deactivated. The Command currently estimates that these six systems will not be complete until at least 1992. Such long-term development illustrates the need for cooperation between the Command and the transportation community to plan for the most effective and efficient processes for implementing systems to fulfill the Command's mission.

The fourth issue concerns the U.S. Transportation Command's plans to use the JOPES ADP system to carry out its mission in the mid-1990s. Delivery of the first increment of this system has been delayed from fiscal year 1992 to fiscal year 1995. In the meantime, the Command will have to use JDS, a system used by its predecessor, the Joint Deployment Agency. However, JDS and the first increment of JOPES do not have the capabilities needed by the Command to execute its employment and sustainment responsibilities. Although the Command has the opportunity to participate in JOPES development through a project group within its deployment directorate, the Joint Chiefs of Staff currently have JOPES development responsibility, and funding for the system is included in the World-Wide Military Command and Control System Information System budget. The problems encountered in developing this system—late delivery, uncertain funding, and limited capabilities in the first release—require resolution to help ensure that the system meets the Command's needs.

The Chief of Staff and other Transportation Command officials expressed agreement with the need to attend to these issues. According to them, many of these issues may not become severe problems, as they were with the Joint Deployment Agency, because the Commander in Chief of the Transportation Command has line authority over the military transportation community during war and national emergency, and the Command is currently developing agreements with other commands to establish operational concepts and responsibilities to reduce potential problems. We believe that continued attention to these issues is required to ensure successful development and implementation of the ADP plan.

Your Command has taken or plans to take action to address these issues as it moves forward in developing and implementing the ADP plan. We would appreciate receiving copies of relevant documents as your plans are formulated. We appreciate the courtesies provided by your staff throughout our work.

Sincerely yours,

David L. Jones Regional Manager

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Objectives, Scope, and Methodology

Our objectives were to review the actions taken by the U.S. Transportation Command in developing the ADP applications of its C4S plan and to examine earlier efforts by the Joint Deployment Agency to develop the Joint Deployment System. In carrying out our work, we interviewed the Director; Deputy Director; and the Chief, Program Management Branch, of the C4S Directorate to learn how the C4S plan is being developed. We also interviewed the Deputy Chief of Staff for Information Management, Military Traffic Management Command; the Deputy Command Information Systems Officer, Military Sealift Command; and the Deputy Chief of Staff for Command and Control Integration Management, Military Airlift Command, to determine their responsibilities and relationships to the U.S. Transportation Command.

To gain an understanding of the Command's background and mission, we reviewed the Command's implementation plan and the draft of its concept of operations. We also reviewed the Command's C4S master plan baseline, which describes the Command's approach to identifying existing transportation-oriented data bases.

Additionally, we visited the Command's Deployment Directorate, which previously was the Joint Deployment Agency, to gather information on JDS and its replacement, JOPES. We also reviewed prior GAO work related to JDS and the readiness of Army units for deployment.¹

Our review was performed at the Command Headquarters and the Military Airlift Command at Scott Air Force Base, Illinois; the Military Traffic Management Command and the Military Sealift Command in Falls Church, Virginia, and Washington, D.C., respectively; and the U.S. Transportation Command's Deployment Directorate at MacDill Air Force Base, Florida.

Our review was performed in accordance with generally accepted government auditing standards from February through May 1988.

¹Deployment: Authority Issues Affect Joint System Development (GAO/NSIAD-86-155, July 23, 1986); and Army Deployment: Better Transportation Planning Is Needed (GAO/NSIAD-87-138. June 18, 1987).

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